STATE OF DELAWARE

DEPARTMENT OF TRANSPORTATION



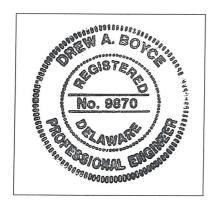
TRANSPORTATION SOLUTIONS

NORTH DISTRICT

PLANS AND SPECIFICATIONS FOR

CONTRACT NUMBER: T201230007 FEDERAL AID PROJECT NUMBER: CMAQ-2012(27)

OPEN END CONSTRUCTION SERVICES, STATEWIDE TRAILS, NEW CASTLE COUNTY



RECOMMENDED:

No. 9629

No. 9629

No. 9629

APPROVED:

DIRECTOR DIVISION OF PLANNING CHIEF ENGINEER
TRANSPORTATION SOLUTIONS

CONTRACT DESCRIPTION

THE PURPOSE OF THIS CONTRACT IS TO CONSTRUCT MULTI-USE TRAILS AND STREETSCAPES IN ACCORDANCE WITH APPLICABLE STANDARDS. THE LOCATION OF WORK IS LIMITED TO SITES WITHIN NEW CASTLE COUNTY. INDIVIDUAL LOCATIONS WILL VARY IN THEIR CONTEXT FROM ROADSIDE SEPARATED FACILITIES TO COMPLETELY OFF-ROAD TRAIL SYSTEMS BUILT ON VIRGIN GROUND.

THE WORK ACTIVITIES INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

- CLEARING
- EXCAVATION
- GRADING
- PLACING ALL MATERIALS FOR TRAIL, SIDEWALK AND ROADWAY CONSTRUCTION
- CONSTRUCTION OF BOTH OPEN AND CLOSED DRAINAGE SYSTEMS
- PLACEMENT OF EROSION AND SEDIMENT CONTROLS
- MAINTENANCE OF TRAFFIC
- SIGNING AND STRIPING
- SIGNAL SYSTEM AND LIGHTING WORK
- GUARDRAIL PLACEMENT
- SITE AMENITIES

SEVERAL WORK SITES FOR THIS CONTRACT HAVE BEEN IDENTIFIED AND ARE LISTED BELOW. NOTE THAT SITES ARE NOT LIMITED TO AND NOT GUARANTEED FOR THIS CONTRACT.

- RT. 273 MULTI-USE TRAIL FACILITY
- C&D CANAL PATHWAY, BRANCH CANAL SECTION
- C&D CANAL PATHWAY, MAINLINE TO MD. BORDER
- HOPKINS ROAD BIKE/PED. IMPROVEMENTS

PROJECT NOTES

- 1. CONSTRUCTION OF THIS CONTRACT SHALL BE PERFORMED IN ACCORDANCE WITH THE DELAWARE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS DATED AUGUST 2001 (AS AMENDED BY THE SUPPLEMENTAL SPECIFICATIONS), THE DELDOT SPECIAL PROVISIONS, STANDARD CONSTRUCTION DETAILS, AND THESE PROJECT NOTES.
- THIS IS AN OPEN-END WORK-ORDER DRIVEN CONTRACT. WITH SOME KNOWN AND OTHER NOT YET DETERMINED LOCATIONS, TO MAKE **IMPROVEMENTS** TO TRAILS, GENERAL ROADS, **BRIDGES** OR PEDESTRIAN/BICYCLE FACILITIES LOCATED WITHIN THE BOUNDARIES OF NEW CASTLE COUNTY. THE WORK SHALL BE AS THE OR REPRESENTATIVE REQUIRES OR DIRECTS VIA INDIVIDUAL WORK-ORDERS. THE DEPARTMENT RESERVES THE RIGHT TO PRIORITIZE, SUBSTITUTE, ADD, OR DELETE LOCATIONS AT ANYTIME DURING THE CONTRACT TERM.
- 3. <u>CONTRACT TERM</u>: THIS CONTRACT SHALL BE FOR A PERIOD OF THREE (3) YEARS FROM THE DATE OF CONTRACT EXECUTION.
- 4. THE LOCATION LISTING INDICATES ESTIMATED QUANTITIES FOR THE THREE YEAR CONTRACT. DURING THE BIDDING PERIOD, ANY QUESTIONS PERTAINING TO LOCATIONS SHALL BE DIRECTED TO THE CONTRACT ADMINISTRATOR. AFTER THE AWARD, SUCH QUESTIONS SHALL BE REFERRED TO THE APPROPRIATE MANAGER OR THEIR REPRESENTATIVE.
- 5. DEPENDING ON FUND AVAILABILITY, THE DEPARTMENT RESERVES THE RIGHT TO INCREASE OR DECREASE THE QUANTITIES OF THE ITEMS SPECIFIED IN THIS CONTRACT. SUCH ADDITIONS OR DELETIONS SHALL NOT BE CAUSE FOR AN INCREASE OR DECREASE IN ANY CONTRACT UNIT BID PRICES. THE TOTAL CONTRACT VALUE, WITH ALL ADDITIONAL WORK ADDED, SHALL NOT EXCEED 200 PERCENT OF THE ORIGINAL CONTRACT VALUE.
- 6. THE WORK WILL BE SCHEDULED BY ISSUANCE OF WORK ORDERS TO THE CONTRACTOR FROM THE DEPARTMENT. EACH WORK ORDER WILL REPRESENT AN INDEPENDENT TRAIL OR STREETSCAPE PROJECT. WORK ORDERS WILL BE ISSUED UPON DESIGN COMPLETION AND RECEIPT OF NECESSARY STATEMENTS & PERMITS FOR THE INDIVIDUAL SITES. UNLESS GIVEN APPROVAL BY THE PROJECT ENGINEER OR CONTRACT MANAGER, FIELD PERSONNEL REPRESENTING THE DEPARTMENT ARE NOT AUTHORIZED TO CHANGE SCOPE OF THE WORK, CONTRACT PROVISIONS, SCHEDULES, OR OTHER CONTRACT DOCUMENTATION AS

STATED BY THE ENGINEER FOR EACH WORK ORDER LOCATION, UNLESS APPROVED BY THE CONTRACT ENGINEER.

- 7. THE SCOPE OF EACH WORK ORDER WILL BE DEFINED BY A FULLY ENGINEERED SET OF CONSTRUCTION DRAWINGS. IN ADDITION TO THE DRAWINGS AND NOTES THE ESTIMATED QUANTITIES, PROPERTY OWNER NOTIFICATION REQUIREMENTS, ALLOWABLE TIME TO PERFORM THE WORK AND ANY ADDITIONAL SPECIFICATIONS AND CONSTRUCTION GUIDANCE NEEDED FOR THE SPECIFIC LOCATIONS OF WORK WILL ALSO BE PROVIDED.
- 8. EACH WORK ORDER SHALL BE CONSIDERED A SEPARATE UNIT OF WORK. UPON COMPLETION OF EACH SINGLE UNIT OF WORK AND ACCEPTANCE BY THE DEPARTMENT, ONE ITEMIZED PAY ESTIMATE WILL BE PREPARED BY THE DEPARTMENT FOR THAT UNIT. A SUMMARY OF THE WORK ORDERS WILL ALSO BE PROVIDED. THE CONTRACTOR SHALL REVIEW AND APPROVE THE ESTIMATES AND SUMMARY. PAYMENT WILL BE MONTHLY FOR THE COMPLETED PAY ESTIMATES AS OUTLINED IN SECTION 109.07.
- 9. PROSECUTION AND PROGRESS OF WORK:
 - a. THE CONTRACTOR SHALL COMMENCE WORK INDICATED ON THE WORK ORDER NO LATER THAN THIRTY (30) DAYS AFTER ISSUANCE UNLESS SEASONAL RESTRICTIONS ARE IN EFFECT OR REQUIRED MATERIALS ARE NOT AVAILABLE. NON-AVAILABILITY OF MATERIALS SHALL BE VERIFIED BY AT LEAST THREE (3) INDEPENDENT SOURCES, WITH THE VERIFICATION FORMALLY PRESENTED IN WRITITNG BY THE CONTRACTOR TO THE DEPARTMENT WITHIN FOUR (4) WORKING DAYS.
 - b. ISSUANCE OF EACH WORK ORDER CONSTITUTES THE NOTICE TO PROCEED WITH THE WORK DESCRIBED ON THE WORK ORDER.
 - c. IF WORK DOES NOT COMMENCE, OR NON-AVAILABILITY OF MATERIALS IS NOT PRESENTED IN THE ALLOTTED TIME, TIME CHARGES EQUAL TO LIQUIDATED DAMAGES FOR THE WORK ORDER SHALL COMMENCE. IF THERE IS A VERIFIED NON-AVAILABILITY OF MATERIALS, TIME CHARGES SHALL COMMENCE ON THE FIRST (1ST) WORKING DAY FOLLOWING THE DELIVERY DATE OF SAID MATERIALS.
 - d. FAILURE TO COMPLETE THE WORK IN THE SPECIFIED TIME SHALL CONSTITUTE "FAILURE TO PURSUE THE WORK" AND SUBJECTS THE CONTRACTOR TO LIQUIDATED DAMAGES AS OUTLINED IN SUBSECTION 108.08 OF THE STANDARD SPECIFICATIONS. EACH WORK ORDER IS TO BE COMPLETED WITHIN THE SPECIFIED TIME. ADDITIONAL ITEMS AND/OR WORKING DAYS MAY BE ADDED TO ANY WORK ORDER AS NEEDED AT THE DISCRETION OF THE ENGINEER. IF THE WORK ON A SPECIFIC WORK

ORDER IS NOT COMPLETED WITHIN THE ALLOCATED TIME, LIQUIDATED DAMAGES WILL BE ASSESSED IN ACCORDANCE WITH SUBSECTION 108.09 OF THE STANDARD SPECIFICATIONS BASED ON THE TOTAL VALUE OF THAT PARTICULAR WORK ORDER.

- e. THE CONTRACTOR MAY HAVE UP TO THREE (3) ACTIVE WORK ORDERS AT A TIME UNTIL ALL ASSIGNED WORK HAS BEEN COMPLETED. THE CONTRACTOR IS REQUIRED TO HAVE ENOUGH RESOURCES TO WORK ON TRAIL AND STREETSCAPE CONSTRUCTION FOR ALL WORK ORDERS ISSUED, WITH THE ABILITY TO PROVIDE ADDITIONAL WORKING CREWS IF REQUESTED BY THE ENGINEER.
- 10. A SEMI-FINAL INSPECTION WILL BE PERFORMED ON EACH WORK-ORDER AFTER THE DEPARTMENT RECEIVES COPIES OF THE COMPLETED WORK-ORDERS FROM THE CONTRACTOR. ALL WORK MUST MEET THE DEPARTMENT'S SPECIFICATIONS AND THE REQUIREMENTS AS OUTLINED IN THESE NOTES. THE CONTRACTOR MUST COMPLETE ANY PUNCHLIST WORK WITHIN THIRTY (30) DAYS OF EACH SEMI-FINAL INSPECTION, UNLESS THE ENGINEER APPROVES OTHERWISE.

ALL WORK IS SUBJECT TO A FINAL INSPECTION UPON EACH WORK ORDER COMPLETION. THE CONTRACTOR WILL HAVE FORTY-FIVE (45) DAYS TO COMPLETE ANY AND ALL PUNCHLIST WORK FROM THE FINAL INSPECTION LETTER DATE, UNLESS THE ENGINEER APPROVES OTHERWISE.

11. THE DEPARTMENT RESERVES THE RIGHT TO, AT ANY TIME PRIOR TO COMPLETION OF THE CONTRACT, MAKE ADJUSTMENTS IN CONTRACT ITEM QUANTITIES, OR MAKE SUCH OTHER ALTERATIONS CONSIDERED NECESSARY TO SATISFACTORILY COMPLETE THE CONTRACT.

FOR THIS CONTRACT, THE FOLLOWING TEXT SHALL BE <u>DELETED</u> FROM SECTION 104.05 (CHANGES IN CHARACTER OF WORK) OF THE STANDARD SPECIFICATIONS:

A CHANGE WILL ALSO BE CONSIDERED TO HAVE OCCURRED WHEN A MAJOR ITEM OF WORK, AS DEFINED ELSEWHERE IN THE CONTRACT, IS INCREASED IN EXCESS OF 125% OR DECREASED BELOW 75% OF THE ORIGINAL CONTRACT QUANTITY. ANY ALLOWANCE FOR AN INCREASE IN QUANTITY SHALL APPLY ONLY TO THAT PORTION IN EXCESS OF 125% OF ORIGINAL CONTRACT ITEM QUANTITY, OR IN CASE OF A DECREASE BELOW 75%, TO THE ACTUAL AMOUNT OF WORK PERFORMED. SUCH CHANGES WILL BE ISSUED IN WRITING BY THE ENGINEER.

- 1. SUCH CHANGES DO NOT INVALIDATE THE CONTRACT OR RELEASE THE CONTRACT SURETY.
- 2. IF AS A RESULT OF SUCH CHANGES THE CONTRACTOR REQUIRES ADDITIONAL TIME TO COMPLETE THE CONTRACT, ADJUSTMENTS IN THE CONTRACT TIME WILL BE MADE UNDER SUBSECTION 108.07.
- 3. PAYMENT FOR CHANGES WILL BE MADE AS PROVIDED IN SUBSECTION 109.03 OR

109.04. PAYMENT SHALL EXCLUDE ANY AMOUNT FOR LOSS OF ANTICIPATED PROFITS ALLEGED TO RESULT FROM THE CHANGE.

- 4. ADJUSTMENTS TO THE UNIT PRICE OF A CONTRACT ITEM BASED ON INCREASES OR DECREASES IN CONTRACT QUANTITIES WILL BE CONSIDERED ONLY ON MAJOR ITEMS AND THEN ONLY FOR THE INCREASE IN EXCESS OF 125% OR DECREASE BELOW 75% OF THE ORIGINAL BID QUANTITY. THE INCREASE OR DECREASE IN THE UNIT PRICE OF A CONTRACT ITEM SHALL APPLY ONLY TO THAT PORTION IN EXCESS OF 125% OF THE CONTACT QUANTITY. IN CASES OF A DECREASE BELOW 75% OF CONTRACT QUANTITY, THE INCREASE AND DECREASE IN THE UNIT PRICE SHALL APPLY TO THE ENTIRE QUANTITY. THE AMOUNT OF THE INCREASE OR DECREASE IN THE UNIT PRICE WILL BE DETERMINED IN ACCORDANCE WITH SUBSECTION 109.04.
- 5. WHEN PAYMENT FOR THE CONTRACT WORK CANNOT BE AGREED UPON BY THE CONTRACTOR AND THE DEPARTMENT PRIOR TO STARTING SUCH WORK ORDERED, THE DEPARTMENT MAY DIRECT THE CONTRACTOR TO PERFORM THE WORK UNDER THE FORCE ACCOUNT PROVISIONS OF SUBSECTION 109.04. THE CONTRACTOR WILL PROCEED IMMEDIATELY WITH WORK SO ORDERED AND SUCH DIRECTION SHALL NEITHER INVALIDATE THE CONTRACT, NOR RELEASE THE SURETY.
- 12. THE CONTRACTOR IS REMINDED THAT SECTION 105.07 OF THE STANDARD SPECIFICATIONS REQUIRES THE GENERAL CONTRACTOR TO HAVE A COMPETENT SUPERINTENDENT OR FOREMAN AT EACH PROJECT LOCATION AT ALL TIMES.
- 13. ALL ADDITIONAL WORK SHALL BE PERFORMED BY CONTRACT UNIT PRICES. IN THE CASE WHERE CONTRACT PRICES ARE NOT AVAILABLE, PRICES ARE TO BE NEGOTIATED OR PERFORMED BY FORCE ACCOUNT PROCEDURES.
- 14. PROPER DISPOSAL OF CONSTRUCTION RELATED WASTES SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR, AND SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE STATE REGULATIONS.
- 15. TRASH, RUBBISH, DEBRIS OR BRUSH THAT HAMPERS REPAIR / MAINTENANCE WORK IN THIS CONTRACT (AS DETERMINED BY THE ENGINEER) SHALL BE REMOVED WITHIN THE PROJECT LIMITS, AND SHALL BE INCIDENTAL TO PAY ITEM 763000 (INITIAL EXPENSE).
- 16. GRASS AND SOIL AREAS WITHIN STATE RIGHT-OF-WAY THAT HAVE BEEN DAMAGED BY THE CONTRACTOR'S EQUIPMENT DURING THIS CONTRACT SHALL BE RESTORED WITH TOPSOIL, SEED AND MULCH AT CONTRACTOR'S OWN EXPENSE, AND IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS 732, 734 & 735.
- 17. THE CONTRACTOR SHALL NOT TRESPASS ON PRIVATE PROPERTY UNLESS THE DEPARTMENT HAS ACQUIRED A "TEMPORARY TRESPASS AGREEMENT" FROM THE PROPERTY OWNER. IF THE WORK IS WITHIN AN EASEMENT, PERMANENT OR TEMPORARY, THE WORK SHALL NOT BEGIN UNTIL THE ADJACENT PROPERTY OWNERS (IF AFFECTED) HAVE BEEN NOTIFIED. PRIOR TO STARTING WORK ON

TEMPORARY OR PERMANENT EASEMENTS, THE CONTRACTOR SHALL NOTIFY AFFECTED PROPERTY OWNERS OF THE PROPOSED WORK DATES. THE CONTRACTOR SHALL PROVIDE ALL RESIDENTS WHO LIVE ADJACENT TO THE WORK ZONE WITH A MINIMUM SEVEN (7) DAYS PRIOR WRITTEN NOTICE FOR THE START OF CONSTRUCTION WORK UNLESS DIRECTED OTHERWISE IN THE SITE SPECIFIC DOCUMENTATION. THIS NOTIFICATION SHALL INCLUDE THE SCOPE OF WORK, WORKING HOURS, ANTICIPATED START AND COMPLETION DATES, CONTRACTOR NAME AND ADDRESS, AND DELDOT CONTACT NAME AND NUMBERS. FAILURE TO GIVE PROPER NOTICE WILL RESULT IN A SUSPENSION OF WORK REQUIRING NOTICE, UNTIL PROPER NOTICE IS PROVIDED.

- 18. NO WORK WILL BEGIN FOR A SPECIFIC WORK ORDER WITHOUT WRITTEN APPROVAL FROM THE DELDOT **ENVIRONMENTAL STUDIES OFFICE**.
- 19. SHOULD A WORK ORDER BE ASSIGNED THAT REQUIRES WORK WITHIN WATERS/WETLANDS AND THUS REQUIRE ENVIRONMENTAL PERMITS, WORK SHALL NOT BEGIN ON SAID LOCATIONS UNTIL ALL APPLICABLE PERMITS HAVE BEEN OBTAINED BY DELDOT. CONFIRM PERMIT STATUS WITH DELDOT ENGINEER PRIOR TO COMMENCEMENT OF APPLICABLE WORK.
- 20. UNDERGROUND UTILITIES MAY BE PRESENT AT ALL LOCATIONS. THEREFORE, ALL STANDARD PRACTICES AND PROCEDURES REGARDING UTILITIES SHALL BE FOLLOWED, SEE SECTION 105.09. THE CONTRACTOR SHALL CONTACT MISS UTILITY OF DELAWARE PRIOR TO STARTING EACH WORK ORDER. THE CONTRACTOR IS RESPONSIBLE FOR THE SUPPORT AND PROTECTION OF ALL UTILITIES WHEN EXCAVATING. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING PROPER CLEARANCES, INCLUDING SAFETY CLEARANCES, FROM OVERHEAD UTILITIES FOR CONSTRUCTION EQUIPMENT. THE CONTRACTOR IS ADVISED TO CHECK THE SITE FOR ACCESS PURPOSES FOR HIS EQUIPMENT, AND MAKE ARRANGEMENTS DIRECTLY WITH UTILITY COMPANIES FOR FIELD ADJUSTMENTS FOR ADEQUATE CLEARANCES IF NECESSARY.
- 21. ALL WORK SHALL BE PERFORMED WITHIN THE EXISTING STATE RIGHT-OF-WAY UNLESS OTHERWISE NOTED ON THE WORK ORDER. RIGHT-OF-WAY INFORMATION SHALL BE AVAILABLE UPON REQUEST FROM THE DELDOT ENGINEER.
- 22. SEASONAL RESTRICTIONS MAY EXIST AT SELECT LOCATIONS TO BE PERFORMED UNDER THIS CONTRACT. THE DEPARTMENT WILL NOTIFY THE CONTRACTOR AT TIME OF AWARD OF THIS CONTRACT OF ANY RESTRICTIONS ON AN ANTICIPATED WORK ORDER BASIS.
- 23. AT THE END OF EACH WORK DAY, THE CONTRACTOR SHALL CORRECT ALL PAVEMENT EDGE DROP OFFS WITHIN 10' OF A TRAVEL LANE TO RESULT IN A DROP OFF OF NO MORE THAN 2". ANY CORRECTIVE MEASURES TAKEN BY THE CONTRACTOR SHALL BE INCIDENTAL TO THE MOT ITEMS.

- 24. ALL PORTLAND CEMENT CONCRETE MUST BE RECEIVED FROM AN APPROVED PRODUCTION PLANT UNLESS OTHERWISE APPROVED BY THE ENGINEER. ONLY CALIBRATED VOLUMETRIC CONCRETE TRUCKS WILL BE PERMITTED TO PROVIDE ON-SITE MIXTURES. THIS PERTAINS TO BOTH WORK OCCURRING DURING NORMAL WORKING HOURS AND NIGHTTIME RESTRICTED WORK.
- 25. THE DEPARTMENT AND THE CONTRACTOR SHALL INSPECT ALL EXISTING PIPES AND DRAINAGE STRUCTURES TO BE USED IN THE FINAL DRAINAGE SYSTEM AND AGREE ON THE CONDITION PRIOR TO THE START OF CONSTRUCTION. EXISTING PIPES AND DRAINAGE STRUCTURES DAMAGED DUE TO CONTRACTOR OPERATIONS SHALL BE REPAIRED OR REPLACED IN-KIND AT THE CONTRACTOR'S EXPENSE. THE DEPARTMENT WILL VIDEO INSPECT NEW PIPE RUNS TO CONFIRM CONDITION PRIOR TO ACCEPTANCE. PIPE CLEANING PRIOR TO VIDEO INSPECTION AND MAINTENANCE OF TRAFFIC DURING THE VIDEO INSPECTION ARE THE RESPONSIBILITY OF THE CONTRACTOR AND INCIDENTAL TO THE PIPE ITEM THAT IS BEING VIDEO INSPECTED.

MAINTENANCE OF TRAFFIC PROJECT NOTES

- 1. THE CONTRACTOR AND ALL OTHERS SHALL PERFORM ALL WORK IN A MANNER THAT SHALL ENSURE THE LEAST PRACTICAL OBSTRUCTION TO ALL ROAD USERS, INCLUDING VEHICULAR, PEDESTRIAN, AND BICYCLE TRAFFIC, AND SHALL BE CONSISTENT WITH SAFETY STANDARDS, AND SHALL COMPLY WITH THE REQUIREMENTS SPECIFIED IN THE LATEST VERSION OF THE "DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) PART 6, HEREIN REFERRED TO AS THE "TRAFFIC CONTROL MANUAL" (INCLUDING REVISIONS IN EFFECT AT THE TIME OF ADVERTISEMENT FOR BIDS).
- 2. THE CONTRACTOR AND ALL OTHERS SHALL REVIEW AND FOLLOW PROJECT SPECIFIC MAINTENANCE OF TRAFFIC (MOT) AND DETOUR PLANS. IF THERE IS ANY CONFLICT BETWEEN THE PROJECT SPECIFIC MOT PLANS AND GENERAL NOTES IN THIS SECTION, THE PROJECT SPECIFIC MOT PLANS WILL SUPERSEDE. IF THE CONTRACTOR SHOULD WISH TO DEVIATE FROM THE PROPOSED MOT AND DETOUR PLANS THEN HE SHALL SEEK APPROVAL FROM THE ENGINEER. NO MOT OR DETOUR CHANGES WILL BE ALLOWED WITHOUT WRITTEN APPROVAL FROM THE ENGINEER PRIOR TO STARTING ANY PROJECT.
- 3. NO LANE CLOSURES WILL BE PERMITTED ON HOLIDAYS OR HOLIDAY WEEKDAYS, UNLESS APPROVED BY THE ENGINEER. THIS REQUIREMENT APPLIES TO ALL ROADS IMPACTED IN THIS CONTRACT, INCLUDING INTERSTATE AND ASSOCIATED RAMPS.

- 4. NO LANE CLOSURES WILL BE PERMITTED UNLESS APPLICABLE WORK ACTIVITY IS TAKING PLACE.
- 5. THE CONTRACTOR SHALL PREPARE AND SUBMIT A TRAFFIC CONTROL PLAN, INCLUDING THE NECESSARY NCHRP 350 CERTIFICATE FOR ALL DEVICES THAT WILL BE UTILIZED FOR EACH LOCATION PRIOR TO THE PRE-CONSTRUCTION MEETING, FOR APPROVAL THREE (3) WORKING DAYS PRIOR TO THE START OF ASSIGNED WORK ORDERS, AND FOR EACH PROJECT SITE. WRITTEN APPROVAL MUST BE RECEIVED FROM THE DEPARTMENT SAFETY OFFICER PRIOR TO THE START OF WORK AT EACH AND EVERY LOCATION. COSTS FOR PREPARATION OF TRAFFIC CONTROL PLANS FOR EACH SITE SHALL BE INCLUDED IN THE BID PRICE FOR PAY ITEM 743000 (MAINTENANCE OF TRAFFIC).
- 6. FOR LOCATIONS REQUIRING A FLAGGING OPERATION, THE FLAGGER WILL BE PAID THE FIXED HOURLY RATE PER ITEMS 743050 & 743062, RESPECTIVELY.
- 7. ALL FLAGGERS UTILIZED BY THE CONTRACTOR FOR THIS PROJECT SHALL BE ATSSA CERTIFIED. ALL FLAGGERS SHALL HAVE THEIR CERTIFICATION CARDS WITH THEM WHILE WORKING. ABSENCE OF A CERTIFICATION CARD WILL BE JUSTIFICATION FOR FLAGGER DISMISSAL FROM THE SITE AND CORRESPONDING SUSPENSION OF WORK. ALL CONSTRUCTION AND CONTRACTOR VEHICLES AND SELF-PROPELLED EQUIPMENT SHALL BE EQUIPPED WITH AN OPERATING ROOF MOUNTED AMBER FLASHING LIGHT. ALL WORKERS SHALL WEAR A RETRO REFLECTIVE ANSI TYPE 3 OR EQUIVALENT SAFETY VEST WHILE THEY ARE WITHIN THE RIGHT-OF-WAY OR ADJACENT TO IT.
- 8. IF A ROAD CLOSURE IS REQUIRED AT RAMP LOCATIONS, THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT THE PROPOSED DETOUR ROUTE TO THE DELDOT SAFETY OFFICER FOR APPROVAL. PAYMENT FOR DETOUR PLAN PREPARATION SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 743000 (MAINTENANCE OF TRAFFIC). THE CONTRACTOR SHALL ALSO COORDINATE THE CLOSURE WITH THE DEPARTMENT. THE DEPARTMENT WILL COORDINATE WITH THE SAFETY SECTION AND BE RESPONSIBLE FOR THE NECESSARY EMERGENCY NOTIFICATIONS. THE DETOUR ROUTE REQUIRES APPROVAL BY THE DEPARTMENT PRIOR TO CLOSURE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING AND MAINTAINING THE MAINTENANCE OF TRAFFIC APPARATUS AT THE CLOSURE (I.E. TYPE III BARRICADE, ROAD CLOSED SIGNS, ETC.) AND ALL ADVANCE-WARNING SIGNS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLACEMENT OF DETOUR TRAILBLAZERS. PAYMENT FOR DETOUR TRAILBLAZERS SHALL BE UNDER ITEM 743024, TEMPORARY WARNING SIGNS & PLAQUES. IF NECESSARY, THE ENGINEER WILL ASSIGN THE DETOUR ROUTE.
- 9. ALL OPEN EXCAVATIONS SHALL BE SECURED WITH THE PLASTIC DRUMS AND ORANGE, CONSTRUCTION SAFETY FENCE. IF THE CONSTRUCTION ACTIVITY RESULTS IN A VERTICAL DIFFERENCE OR DROP-OFF ALONG, ADJACENT TO OR

ACROSS A TRAVEL WAY, THE CONTRACTOR SHALL ELIMINATE OR REMEDY THE HAZARD BY THE METHODS DETAILED IN SECTION 6G.20, TABLE 6G-1 OF THE TRAFFIC CONTROL MANUAL AS DIRECTED BY THE ENGINEER. THE CONSTRUCTION SAFETY FENCE, TIE WIRE, ETC. SHALL BE INCIDENTAL TO THE WORK IT PROTECTS.

- 10. TRAFFIC CONTROL DEVICES SHALL BE PROVIDED AND PLACED IN ACCORDANCE WITH THE DELAWARE MUTCD (TRAFFIC CONTROL MANUAL).
- 11. THE TRAFFIC CONTROL PLAN MUST CLEARLY INDICATE THE ORIENTATION OF TRAFFIC CONTROL DEVICES TO BE USED FOR EACH SITE. THE PLAN MUST BE APPROVED BY DELDOT SAFETY OFFICER AND DELDOT ENGINEER PRIOR TO COMMENCEMENT OF WORK AT EACH SITE.
- 12. ALL REQUIRED MAINTENANCE OF TRAFFIC WARNING SIGNS WILL BE PAID UNDER ITEM 743024, TEMPORARY WARNING SIGNS & PLAQUES, AS DETERMINED BY THE DURATION OF CONSTRUCTION. ALL TEMPORARY TRAFFIC CONTROL DEVICES USED ON ALL HIGHWAYS OPEN TO THE PUBLIC IN THIS STATE SHALL BE IN NEW OR REFURBISHED CONDITION AND SHALL BE CRASHWORTHY IN ACCORDANCE WITH THE NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) REPORT 350 AND THE MEMORANDUM ISSUED AUGUST 28, 1998 BY THE USDOT FEDERAL HIGHWAY ADMINISTRATION INFORMATION: CRASH TESTED WORK ZONE TRAFFIC CONTROL DEVICES. IT IS THE REQUIREMENT OF THE DEPARTMENT THAT SUCH CERTIFICATION BE SUBMITTED FOR TRAFFIC CONTROL DEVICES USED ON ALL PROJECTS, NOT JUST THOSE INVOLVING THE NATIONAL HIGHWAY SYSTEM.
- 13. NO SEPARATE PAYMENT SHALL BE MADE FOR THE USE OF TRAFFIC CONES. TRAFFIC CONES AND/OR WORK ASSOCIATED WITH THEIR USE, SUCH AS SET UP, REMOVAL, CLEANING, ETC., SHALL BE INCIDENTAL TO THE WORK FOR WHICH THEY PROTECT.
- 14. A TRUCK MOUNTED ATTENUATOR; TYPE II (ITEM 743010) SHALL BE REQUIRED ON ROADS FOR SHOULDER WORK, TRAVEL LANE WORK AND FOR OTHER OPERATIONS AS OUTLINED IN THE DELDOT TRAFFIC CONTROL MANUAL, OR AS DIRECTED BY THE ENGINEER.
- 15. ALL EQUIPMENT SHALL BE REMOVED FROM THE JOB SITES ON A DAILY BASIS, EXCEPT WHEN ALLOWED BY THE DELDOT APPROVED TRAFFIC SAFETY PLAN, OR AS APPROVED BY THE ENGINEER.
- 16. ANY ERRONEOUS PAVEMENT MARKINGS WILL NOT BE PAID FOR AND SHALL BE CORRECTED IMMEDIATELY AT THE CONTRACTORS EXPENSE. ERRONEOUS MARKINGS OR SHADOWS THAT EXCEED ONE (1) INCH IN WIDTH SHALL BE REMOVED BY EITHER SAND OR WATER BLASTING. NO OTHER REMOVAL

METHODS WILL BE ALLOWED. A FLAT BLACK PAINT OR DRIVEWAY SEALER SHALL BE APPLIED IN THE AREA OF THE REMOVED MARKING TO MASK THE REPAIR. ANY DAMAGE TO THE PAVEMENT CAUSED BY REMOVAL OF ERRONEOUS MARKINGS SHALL BE REPAIRED / REPLACED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTORS EXPENSE.

- 17. AT THE END OF EACH DAY'S OPERATION AND BEFORE TRAFFIC IS RETURNED TO UNRESTRICTED ROADWAY USE, TEMPORARY STRIPING SHALL BE UTILIZED AT LOCATIONS THAT REQUIRE PERMANENT STRIPING PER THE LATEST VERSION OF THE PERMANENT MARKING SECTION OF THE TRAFFIC CONTROL MANUAL. TEMPORARY PAVMENT MARKINGS SHALL BE PAID AT THE APPLICABLE CONTRACT UNIT PRICE.
- 18. PEDESTRIAN MAINTENANCE OF TRAFFIC: THIS WORK SHALL CONSIST OF PROVIDING AND MAINTAINING AN ACCESSIBLE PEDESTRIAN ROUTE THROUGHOUT THE PROJECT'S LIMITS IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT OF 1990 (ADA) TITLE II, PARAGRAPH 35.130. THE CONTRACTOR SHALL BE REQUIRED TO REVIEW EACH CURB RAMP LOCATION AND SUBMIT THE APPROPRIATE MAINTENANCE OF TRAFFIC DETAIL AND DEVICES TO THE ENGINEER FOR EACH LOCATION AT LEAST 2-WEEKS BEFORE CONSTRUCTION FOR REVIEW, COMMENT, AND APPROVAL. THE FOLLOWING CONSIDERATIONS SHALL BE TAKEN INTO ACCOUNT WHEN ADDRESSING ACCESSIBLE PEDESTRIAN MAINTENANCE OF TRAFFIC:
 - a. ALL PEDESTRIANS, INCLUDING PERSONS WITH DISABILITIES, SHALL BE PROVIDED WITH A REASONABLY SAFE, CONVENIENT AND ACCESSIBLE PATH THAT REPLICATES, AS MUCH AS PRACTICABLE, THE EXISTING PEDESTRIAN FACILITIES.
 - b. MAINTAIN ACCESS TO ALL BUSINESSES AND RESIDENCES AT ALL TIMES.
 - c. PROVIDE PEDESTRIAN ACCESS THROUGH OR AROUND THE WORK ZONE. IF A DETOUR IS CHOSEN THE CONTRACTOR MUST SUBMIT THE DETOUR ROUTE TO THE ENGINEER FOR REVIEW AND APPROVAL. THE DETOUR ROUTE MUST MEET OR EXCEED THE CURRENT CONDITIONS.
 - d. WORK SHOULD BE PHASED SO THAT ALL AREAS OF AN INTERSECTION/SIDEWALK PATH ARE NOT UNDER CONSTRUCTION AT THE SAME TIME UNLESS A CLEAR PEDESTRIAN PATH IS PROVIDED AND IDENTIFIED
 - e. TRAFFIC CONTROL DEVICES AND OTHER CONSTRUCTION MATERIALS AND FEATURES SHALL NOT INTRUDE INTO THE USABLE WIDTH OF THE SIDEWALK, TEMPORARY PATHWAY OR OTHER PEDESTRIAN FACILITY.
 - f. SIGNS AND OTHER DEVICES MOUNTED LOWER THAN 7 FT ABOVE THE TEMPORARY PEDESTRIAN PATHWAY SHALL NOT PROJECT MORE THAN 4 IN. INTO ACCESSIBLE PEDESTRIAN ROUTE.
 - g. A SMOOTH, CONTINUOUS HARD SURFACE SHALL BE PROVIDED THROUGHOUT THE ENTIRE LENGTH AND WIDTH OF THE PEDESTRIAN ROUTE THROUGHOUT CONSTRUCTION. THERE SHALL BE NO CURBS OR

VERTICAL ELEVATION CHANGES GREATER THAN ¼ INCH IN GRADE OR TERRAIN THAT COULD CAUSE TRIPPING OR BE A BARRIER TO WHEELCHAIR USE.

PROJECT ITEMS AND QUANTITIES SITE SPECIFIC

LOCATION 1 RT. 273 MULTI-USE TRAIL FACILITY

Item	Description	UOM	Quantity
201000	CLEARING AND GRUBBING	LS	1
202000	EXCAVATION AND EMBANKMENT	CY	3131
208000	EXCAVATION AND BACKFILLING FOR PIPE TRENCHES	CY	20
209001	BORROW, TYPE A	CY	474
209006	BORROW, TYPE F	CY	50
210000	FURNISHING BORROW TYPE C FOR PIPE, UTILITY	CY	20
211000	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LS	1
250000	SEDIMENT REMOVAL	CY	105
251000	SILT FENCE	LF	14,515
251001	REINFORCED SILT FENCE	LF	500
252001	INLET SEDIMENT CONTROL,CURB INLET	EACH	9
252002	INLET SEDIMENT CONTROL, AT GRADE INLET	EACH	6
254000	STONE CHECK DAM	TON	12
268000	STABILIZED CONSTRUCTION ENTRANCE	TON	68
302007	GRADED AGGREGATE BASE COURSE, TYPE B	CY	2,215
302008	GRADED AGGREGATE BASE COURSE, TYPE B, PATCHING	CY	72

401801	WMA, SUPERPAVE, TYPE C, 160 GYRATIONS, PG64-22 (CARBONATE STONE)	TON	1269
401810	WMA, SUPERPAVE, TYPE B, 160 GYRATIONS, PG 64-22	TON	185
401819	WMA, SUPERPAVE, BCBC, 160 GYRATIONS, PG 64-22	TON	123
401822	WMA, SUPERPAVE, TYPE B, 160 GYRATIONS, PG 64-22,PATCHING	TON	55
401823	WMA, SUPERPAVE, BCBC, 160 GYRATIONS, PG 64-22, PATCHING	TON	92
401827	WMA, SUPERPAVE, TYPE C, 160 GYRATIONS, PG 64-22 (NON-CARBONATE STONE)	TON	144
501526	PATTERNED PORTLAND CEMENT CONCRETE PAVEMENT, 8"	SY	41
605576	BIKE RACK	EACH	1
612021	REINFORCED CONCRETE PIPE, 15", CLASS IV	LE	24
612022	REINFORCED CONCRETE PIPE, 18", CLASS IV	LF	48
612025	REINFORCED CONCRETE PIPE, 30", CLASS IV	LF	42
612216	REINFORCED CONCRETE PIPE ELLIPTICAL PIPE, 14"X23", CLASS IV	LF	4
617002	REINFORCED CONCRETE FLARED END SECTION, 15"	EACH	2
617003	REINFORCED CONCRETE FLARED END SECTION, 18"	EACH	1
617007	REINFORCED CONCRETE FLARED END SECTION, 30"	EACH	1
617009	REINFORCED CONCRETE FLARED END SECTION, 36"	EACH	1
701010	PORTLAND CEMENT CONCRETE CURB, TYPE 1-8	LF	804
701011	PORTLAND CEMENT CONCRETE CURB, TYPE 2	LF	183
701020	INTEGRAL PORTLAND CEMENT CONCRETE CURB AND GUTTER, TYPE 1-8	LF	676
701022	INTEGRAL PORTLAND CEMENT CONCRETE CURB AND GUTTER, TYPE 3-8	LF	256
705001	P.C.C. SIDEWALK, 4"	SF	1972
705002	P.C.C. SIDEWALK, 6"	SF	1350
705005	P.C.C. SIDEWALK, 8"	SF	1099

705007	SIDEWALK SURFACE DETECTABLE WARNING SYSTEM	SF	490
705528	TEMPORARY CURB RAMP	EACH	1
705530	TRIANGULAR CHANNELIZING ISLAND	SF	1211
708052	DRAINAGE INLET, 48" X 30"	EACH	2
708112	MANHOLE, 48" X 48"	EACH	1
708585	JUNCTION BOX, 48" X 30"	EACH	1
710001	ADJUSTING AND REPAIRING EXISTING DRAINAGE INLET	EACH	1
710506	ADJUST AND REPAIR EXISTING SANITARY MANHOLE	EACH	1
710507	ADJUST AND REPAIR EXISTING SANITARY CLEANOUTS	EACH	1
712005	RIPRAP, R-4	SY	51
713003	GEOTEXTILES, RIPRAP	SY	51
716000	CONVERT EXISTING DRAINAGE INLET TO JUNCTION BOX	EACH	1
727014	CONSTRUCTION SAFETY FENCE	LF	1,309
727015	MONUMENT	EACH	22
727510	WOOD RAIL FENCE	LF	670
727545	TEMPORARY FENCE AND BOARDWALK	LF	800
732002	TOPSOIL, 6" DEPTH	SY	16,186
734013	PERMANENT GRASS SEEDING, DRY GROUND	SY	16,186
735535	SOIL RETENTION BLANKET MULCH, TYPE 5	SY	1,189
738006	TRANSPLANTING LARGE DECIDUOUS TREES MORE THAN 8"	EACH	4
738010	TRANSPLANTING LARGE EVERGREEN TREES MORE THAN 8"	EACH	4
741001	TREE REMOVAL 6" TO 10.9"	EACH	8
743000	MAINTENANCE OF TRAFFIC	LS	1

743003	ARROWPANELS, TYPE C	EADY	252
743006	PLASTIC DRUMS	EADY	15,457
743007	TRAFFIC OFFICERS	HR	50
743010	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	EADY	36
743023	TEMPORARY BARRICADES, TYPE III	LFDY	9,048
743024	TEMPORARY WARNING SIGNS AND PLAQUES	EACH	5339
743050	FLAGGER, NEW CASTLE COUNTY, STATE	HOUR	2,160
	FLAGGER, NEW CASTLE COUNTY, STATE,		
743062	OVERTIME ADJUST AND REPAIR EXISTING CONDUIT	HOUR	432
744505	JUNCTION WELL	EACH	6
744525	REMOVAL OF EXISTING JUNCTION WELL CONDUIT JUNCTION WELL, TYPE 11, PRECAST	EACH	1
744530	CONCRETE/POLMER LID-FRAME CONDUIT JUNCTION WELL, TYPE 14, PRECAST	EACH	10
744531	CONCRETE/POLMER LID-FRAME FURNISH AND INSTALL UP TO 4" SCHEDULE 80	EACH	3
745602	HDPE CONDUIT (BORE)	LF	330
745603	FURNISH AND INSTALL UP TO 4" SCHEDULE 80 HDPE CONDUIT (OPEN CUT)	LF	37
745604	FURNISH AND INSTALL UP TO 4" SCHEDULE 80 HDPE CONDUIT (TRENCH)	LF	1235
746509	RELOCATE LIGHT POLE	EACH	1
746590	FURNISH AND INSTALL GROUND ROD	EACH	1
746830	REMOVAL OF CONCRETE POLE BASE AND CABINET FOUNDATIONS	CY	1
746850	POLE BASE, TYPE 4	EACH	6
746852	POLE BASE, TYPE 6	EACH	1
746908	FURNISH AND INSTALL 1-CONDUCTOR #4 AWGTHWIN STANDARD COPPER	LF	280
746914	FURNISH AND INSTALL #6 STRANDED SOLID COPPER GROUND	LF	150
170017	FURNISH AND INSTALL 1" FLEXIABLE NON- METALIC LIQUID TIGHT CONDUIT DETECTOR	LI	100
746923	SLEEVE SLEEVE	LF	72

FURNISH AND INSTALL LOOP WIRE 1- CONDUCTOR #14AWG ENCASED IN 1/4" FLEXIABLE TUBING	LF	489
PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND, ALKYD-THERMOPLACTIC	SF	2903
PERMANENT PAVEMENT STRIPING, ALKYD- THERMOPLACTIC, 12"	LF	118
PERMANENT PAVEMENT STRIPING, ALKYD- THERMOPLACTIC, 5"	LF	371
REMOVAL OF PAVEMENT STRIPING	SF	510
PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	LF	4,821
PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE, 10"	LF	150
SUPPLY OF RECTANGULAR RAPID FLASHING BEACON (RRFB)	EACH	1
INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON SINGLESIGN POST	EACH	240
INSTALLATION OF 4"DIAMETER HOLE, LESS THAN OR EQUAL TO 6" DEPTH	EACH	4
ADJUST WATER VALVE BOXES	EACH	4
ADJUST FIRE HYDRANT	EACH	1
RELOCATE FIRE HYDRANTS	EACH	1
CEMENTCONCRETE PAVEMENT, CURB,SIDEWALK, ETC.	SY	2,492
PROFILE MILLING, HOT-MIX	SY-IN	5,683
SAW CUTTING, HOT MIX	LF	316
SAW CUTTING, CONCRETE, FULL DEPTH	LF	2,123
INITIAL EXPENSE	L.S.	1
CONSTRUCTION ENGINEERING	L.S.	1
BENCH	EACH	1
KIOSK, TYPE 1	EACH	1
UTILITY CONSTRUCTION ENGINEERING	HR	40
	CONDUCTOR #14AWG ENCASED IN 1/4" FLEXIABLE TUBING PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND, ALKYD-THERMOPLACTIC PERMANENT PAVEMENT STRIPING, ALKYD- THERMOPLACTIC, 12" PERMANENT PAVEMENT STRIPING, ALKYD- THERMOPLACTIC, 5" REMOVAL OF PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5" PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE, 10" SUPPLY OF RECTANGULAR RAPID FLASHING BEACON (RRFB) INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON SINGLESIGN POST INSTALLATION OF 4"DIAMETER HOLE, LESS THAN OR EQUAL TO 6" DEPTH ADJUST WATER VALVE BOXES ADJUST FIRE HYDRANT RELOCATE MILLING, HOT-MIX SAW CUTTING, CONCRETE, FULL DEPTH INITIAL EXPENSE CONSTRUCTION ENGINEERING BENCH KIOSK, TYPE 1	CONDUCTOR #14AWG ENCASED IN 1/2" FLEXIABLE TUBING PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND, ALKYD-THERMOPLACTIC PERMANENT PAVEMENT STRIPING, ALKYD-THERMOPLACTIC, 12" PERMANENT PAVEMENT STRIPING, ALKYD-THERMOPLACTIC, 5" REMOVAL OF PAVEMENT STRIPING ALKYD-THERMOPLACTIC, 5" REMOVAL OF PAVEMENT STRIPING SF PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5" LF PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE, 10" SUPPLY OF RECTANGULAR RAPID FLASHING BEACON (RFFB) INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON SINGLESIGN POST INSTALLATION OF 4"DIAMETER HOLE, LESS THAN OR EQUAL TO 6" DEPTH ADJUST WATER VALVE BOXES ADJUST FIRE HYDRANT RELOCATE FIRE HYDRANTS REMOVAL OF EXISTING PORTLAND CEMENTCONCRETE PAVEMENT, CURB, SIDEWALK, ETC. SY PROFILE MILLING, HOT-MIX SAW CUTTING, CONCRETE, FULL DEPTH LF INITIAL EXPENSE L.S. CONSTRUCTION ENGINEERING L.S. BENCH KIOSK, TYPE 1 EACH KIOSK, TYPE 1

LOCATION 2 C&D CANAL PATHWAY, BRANCH CANAL SECTION

Item	Description	UOM	Quantity
201000	CLEARING AND GRUBBING	LS	1
202000	EXCAVATION AND EMBANKMENT	CY	1,568
209006	BORROW, TYPE F	CY	5,811
212000	UNDERCUT EXCAVATION	CY	1,336
251001	REINFORCED SILT FENCE	LF	5,427
268000	STABILIZED CONSTRUCTION ENTRANCE	TON	120
302007	GRADED AGGREGATE BASE COURSE, TYPE B	CY	2,005
302011	DELAWARE NO. 3 STONE	TON	12
302012	DELAWARE NO. 57 STONE	TON	40
401800	WMA, SUPERPAVE, TYPE C, 115 GYRATIONS, PG64-22(CARBONATE STONE)	TON	349
401809	WMA, SUPERPAVE, TYPE B, 115 GYRATIONS, PG 64-22	TON	579
712540	GEOGRID, STABILIZATION	SF	36,028
732002	TOPSOIL, 6" DEPTH	SY	5,387
734013	PERMANENT GRASS SEEDING, DRY GROUND	SY	5,387
743000	MAINTENANCE OF TRAFFIC	LS	1
743023	TEMPORARY BARRICADE, TYPE III	LFDY	6,480
743024	TEMPORARY WARNING SIGNS AND PLAQUES	EADY	1,800
743538	WOODEN SIGN POSTS 4"x4"	EACH	6
743540	WOODEN SIGN POSTS 6"x6"	EACH	1
743541	WOODEN SIGN POSTS 6"x8"	EACH	2
749574	SIGN PANEL, ADVANCE NOTICE SIGNS	SF	40

749687	INSTALLATION OR REMOVAL OF TRAFFIC SIGN(s) ON SINGLESIGN POSTS	EACH	10
759005	FIELD OFFICE, TYPE II	EAMO	6
763000	INITIAL EXPENSE	LS	1
763501	CONSTRUCTION ENGINEERING	LS	1
763508	PROJECT CONTROL SYSTEM DEVELOPMENT PLAN	LS	1
763509	CPM SCHEDULE UPDATES AND/OR REVISED UPDATES	EAMO	6
763510	SITE FURNISHINGS	LS	1
763597	UTILITY CONSTRUCTION ENGINEERING	HOUR	10

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LOCATION 3 C&D CANAL PATHWAY, MAINLINE TO MD. BORDER

Item	Description	UOM	Quantity
201000	CLEARING AND GRUBBING	LS	1
202000	EXCAVATION AND EMBANKMENT	CY	7.890
208000	EXCAVATION AND BACKFILLING FOR PIPE TRENCHES	CY	308
209003	BORROW, TYPE C	CY	1,110
209006	BORROW, TYPE F	CY	3,565
210000	FURNISHING BORROW TYPE C FOR PIPE, UTILITY	CY	210
211000	REMOVAL OF STRUCTURES AND OBSTRUCTIONS (PIPE)	LS	1
251000	SILT FENCE	LF	1700
252000	INLET SEDIMENT CONTROL, DRAINAGE INLET	EA	27
268000	STABILIZED CONSTRUCTION ENTRANCE	TON	80

270500	DEWATERING BAG	EA	1
272503	TRASH RACK	EA	21
302007	GRADED AGGREGATE BASE COURSE, TYPE B	CY	2,645
302011	DELAWARE NO. 3 STONE	TON	20
302012	DELAWARE NO. 57 STONE	TON	108
401574	PERVIOUS BITUMINOUS ASPHALT PAVEMENT	SY	5,920
401800	WMA, SUPERPAVE, TYPE C, 115 GYRATIONS, PG 64-22 (CARBONATE STONE)	TON	1,472
401809	WMA, SUPERPAVE, TYPE B, 115 GYRATIONS, PG 64-22	TON	2,944
602615	MODULAR BLOCK RETAINING WALL	SF	1000
612526	CORRUGATED POLYETHYLENE PIPE, TYPE S, 36"	LF	550
612527	CORRUGATED POLYETHYLENE PIPE, TYPE C,	LF	470
617511	CORRUGATED POLYETHYLENE FLARED END SECTION, 18"	EA	11
617514	CORRUGATED POLYETHYLENE FLARED END SECTION, 36"	EA	21
701010	PORTLAND CEMENT CONCRETE CURB, TYPE	LF	2,200
705001	P.C.C. SIDEWALK, 4"	SF	378
705007	SIDEWALK SURFACE DETECTABLE WARNING SYSTEM	SF	75
705504	BRICK AND/OR BLOCK SIDEWALK	SF	2,940
708060	REPLACE DRAINAGE INLET GRATE(S)	EA	7
708061	REPLACE DRAINAGE INLET FRAME(S)	EA	7
709518	SANITARY CLEANOUT	EA	40
710001	ADJUSTING AND REPAIRING EXISTING DRAINAGE OUTLET	EA	7
712005	RIPRAP, R-4	SY	1000
712540	GEOGRID, STABILIZATION	SF	2002

713002	GEOTEXTILES, SEPARATION	SY	1000
715517	PERFORATED PVC PIPE UNDERDRAINS, 6"	LF	8,784
727014	CONSTRUCTION SAFETY FENCE	LF	571
		LF	200
727510	WOOD RAIL FENCE		8,478
732000	TOPSOIL, 4" DEPTH	SY	8,478
733001	TOPSOILING, 4" DEPTH	SY	·
734013	PERMANENT GRASS SEEDING, DRY GROUND	SY	14,850
734017	TEMPORARY GRASS SEEDING, DRY GROUND	SY	6200
735535	SOIL RETENTION BLANKET MULCH, TYPE 5	SY	9,422
743006	PLASTIC DRUMS	EADY	523
743024	WARNING SIGNS	EADY	1801
743548	WOODEN SIGN POSTS, 4" x 4"	EA	38
743540	WOODEN SIGN POSTS, 6" x 6"	EA	10
748015	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND ALKYD-THERMOPLASTIC	SF	186
748548	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT 5"	LF	15,544
748555	PREFORMED RETROREFLECTIVE THERMOPLASTIC PAVEMENTMARKINGS, HANDICAP SYMBOL	EA	2
749687	INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON SINGLESIGN POST	EA	20
749690	INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON MULTIPLESIGN POSTS	SF	84
758000	REMOVAL OF EXISTING P.C.C. PAVEMENT, CURB, SIDEWALK, ETC.	SY	60
759005	FIELD OFFICE, TYPE II	EAMO	6
762001	SAW CUTTING, HOT-MIX	LF	204
763000	INITIAL EXPENSE	LS	1
743000	MAINTENANCE OF TRAFFIC	LS	1

763501	CONSTRUCTION ENGINEERING	LS	1
763508	PROJECT CONTROL SYSTEM DEVELOPMENT PLAN	LS	1
763509	CPM SCHEDULE UPDATES AND/OR REVISED UPDATES	EAMO	6
763510	SITE FURNISHINGS	LS	1
763514	RESTROOM FACILITY	LS	1
763597	UTILITY CONSTRUCTION	HR	40



Item	Description	UOM	Quantity
201000	CLEARING AND GRUBBING	LS	1
202000	EXCAVATION AND EMBANKMENT	CY	358
209001	BORROW, TYPE A	CY	37
211000	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LS	1
252002	INLET SEDIMENT CONTROL, AT GRADE INLET	EACH	3
302008	GRADED AGGREGATE BASE COURSE, TYPE B, PATCHING	CY	205
401821	WMA, SUPERPAVE, TYPE C, 160 GYRATIONS, PG 64-22, PATCHING	TON	102
401822	WMA, SUPERPAVE, TYPE B, 160 GYRATIONS, PG 64-22, PATCHING	TON	128
602586	REHABILITATION OF CONCRETE STRUCTURE	CF	2
602611	REPAIR OF CONCRETE STRUCTURES BY EPOXY INJECTION	LF	25
605692	SILICONE JOINT SEAL	LF	200
606503	STEEL HAND RAILING	LF	365
610001	STONE MASONRY	SF	4

610502	POINTING EXISTING STONE MASONRY	LF	200
720556	BOLLARD	EACH	7
732004	TOPSOIL (TON)	TON	26
734013	PERMANENT GRASS SEEDING, DRY GROUND	SY	125
743000	MAINTENANCE OF TRAFFIC	LS	1
743004	FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	EADY	14
743006	PLASTIC DRUMS	EADY	600
743010	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	EADY	20
743023	TEMPORARY BARRICADES, TYPE III	LFDY	400
743024	TEMPORARY WARNING SIGNS AND PLAQUES	EADY	290
743050	FLAGGER, NEW CASTLE COUNTY	HOUR	352
743062	FLAGGER, NEW CASTLE COUNTY, STATE, OVERTIME	HOUR	88
743550	TUBULAR DELINEATOR	EACH	64
748015	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND ALKYD-THERMOPLASTIC	SF	216
748530	REMOVAL OF PAVEMENT STRIPING	SF	190
748548	PERMANENT PAVEMENT STRIPING EPOXY RESIN PAINT, WHITE/YELLOW, 5"	LF	1900
748549	PERMANENT PAVEMENT STRIPING EPOXY RESIN PAINT, WHITE/YELLOW, 10"	LF	1,900
748557	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, BLACK 3"	LF	380
749687	INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON SINGLESIGN POST	EACH	18
762001	SAW CUTTING, HOT MIX	LF	921
763000	INITIAL EXPENSE	LS	1
763501	CONSTRUCTION ENGINEERING	LS	1